

CLAIMS

Amendments to the Claims:

Please amend the claims as follows, where added material is underlined and material to be deleted is indicated by strikethrough font. This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently amended) A method for providing treatment to a patient for a medical condition related to the quantity of food consumed by the patient ~~intake~~ comprising:
measuring an electrical activity of the patient's gastrointestinal tract;
estimating the quantity of food consumed by the patient as a function of the measurement; and
delivering a therapy to the patient as a function of the estimation of quantity of food consumption.
2. (Previously presented) The method of claim 1, wherein measuring the physiological parameter further comprises measuring a core body temperature of the patient.
3. (Cancelled)
4. (Previously presented) The method of claim 1, wherein measurement of the electrical activity of the patient's gastrointestinal tract comprises measurement of an electrical activity of at least one of a stomach, esophagus and intestine of the patient.
5. (Previously presented) The method of claim 1, wherein measuring the electrical activity of the patient's gastrointestinal tract includes measurement of transabdominal impedance.
6. (Currently amended) The method of claim 1, further comprising measuring an activity level of the patient and wherein the therapy delivered is also a function of the measured activity level.

7. (Original) The method of claim 6, wherein measuring the activity level of the patient comprises measuring physical motion of the patient.
8. (Original) The method of claim 6, wherein measuring the activity level of the patient comprises measuring a heart rate of the patient.
9. (Cancelled)
10. (Currently amended) The method of claim 1, wherein delivering the therapy comprises delivering insulin to the patient in an amount determined using the estimation of quantity of food consumed by the patient.
11. (Previously presented) The method of claim 6, further comprising delivering glucagon to the patient as a function of the estimation of the quantity of food consumed and a function of the measured activity level.
12. (Cancelled)
13. (Currently amended) A system comprising:
 - a sensor to sense an electrical activity of a gastrointestinal tract of a patient;
 - a processor in communication with the sensor and configured to estimate the quantity of food consumed by the patient as a function of the sensed electrical activity of the gastrointestinal tract received by the processor from the sensor, and wherein the processor is also configured to generate a control signal to control a drug delivery system as a function of the estimation; and
 - the drug delivery system configured to deliver a an amount of drug determined as a function of the estimation ~~to a body of the patient~~ in response to the control signal.
14. (Original) The system of claim 13, wherein the drug delivery system comprises:
 - a reservoir holding the drug; and

a pump to deliver the drug to the body of the patient by dispensing the drug from the reservoir.

15. (Original) The system of claim 13, wherein the system is implanted within the body of the patient.

16. (Previously presented) The system of claim 13, further comprises a temperature sensor to sense a core body temperature.

17. (Previously presented) The system of claim 13, wherein the sensor that senses electric activity of a gastrointestinal tract further comprises at least one electrode.

18. (Previously presented) The system of claim 13, further comprises at least one electrode to sense transabdominal impedance.

19. (Original) The system of claim 13, wherein the drug comprises at least one of insulin and glucagon.

20. (Original) The system of claim 13, wherein the drug delivery system comprises
a first reservoir holding insulin;
a first pump to deliver the insulin to the body of the patient by dispensing the insulin from the first reservoir;
a second reservoir holding glucagon; and
a second pump to deliver the glucagon to the body of the patient by dispensing the glucagon from the second reservoir.

21. (Original) The system of claim 20, wherein the processor is configured to generate a first control signal to control the first pump and a second control signal to control the second pump.

22. (Currently amended) The system of claim 13, further comprising memory coupled to the processor to store diet information for the patient wherein such diet information will be used by the processor in the estimation of food intake.

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)